

MUD IN THE STREET, WHAT ARE THE SOLUTIONS?

Submitted by City of Lincoln, Public Works and Utilities Department, Watershed Management Division

This is the third in a continuing series of articles provided by the City of Lincoln, Watershed Management Division to address sediment and erosion control issues. In the next several articles, we will be outlining inexpensive, practical measures that can be taken on individual building sites. Focusing on erosion control or preventing sediment from leaving the grounds of a construction site, is one of the best ways to keep mud off of the streets and out of the drainage system. Today we will focus on the use of compost as a BMP or Best Management Practice for erosion control.

What is compost? Compost is a humus-like material that is high in organic matter from decaying grass clippings, leaves and wood chips.

How much does it cost? The City provides compost for a fee of \$6.00 per cubic yard and will deliver it for a fee of \$50 per dump truck load. Delivery can be made anywhere in Lancaster County. Individuals may also arrange their own transportation of the material.



Compost as a raw material

How does it work? When raindrops hit an area that has had the vegetation removed, they dislodge and detach soil particles (*splash erosion*). If there is more rainfall than the ground can absorb, the resulting runoff carries the detached soil particles away. Compost buffers the unvegetated soil from the direct impact of raindrops. This allows the unvegetated soil to receive moisture and helps to prevent the runoff velocities which carry sediment away.

Using compost in highly erosive areas can decrease erosion and allow quicker establishment of vegetation. One study conducted shows a compost application reducing soil loss by 86 percent compared to unvegetated soils, decreasing sediment reaching nearby surface waters by 99 percent when compared to silt fences, and 38 percent when compared to hydroseeding

applications. Once incorporated with the soil, compost may increase infiltration by up to 125 percent according to the same study.



Compost filled filter sock

Another Best Management Practice is compost filter sock. These are made by blowing larger compost particles (like wood chips) from a pump truck into a material that allows water to infiltrate, but keeps the compost in place. The compost filter sock can be staked into place. This application can also be used in the winter when the ground is frozen and stakes or posts cannot be driven.

A variation of the filter sock application is a compost filter berm. In this application, compost is formed into a small linear dike approximately three ft. wide by one ft. tall. Here again the compost material is the larger wood chips material which interlock to provide stability for the berm and allow the runoff water to slow down enough to drop out the sediment in the flow. The larger material needed for the filter sock and filter berm is \$15 per cubic yard. If you have questions about the compost which the City has available, contact Gene Hanlon of Public Works and Utilities Wastewater and Solid Waste at 441-7043.

The City will be providing additional articles in upcoming months to address sediment and erosion control, and other Best Management Practices issues in Lincoln. If you have questions about this subject please contact Gary Lacy of Public Works and Utilities at 441-4957 or John Callen of Building and Safety at 441-4970.